

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference RPH. P52246WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/002667	International filing date (day/month/year) 21/06/2004	(Earliest) Priority Date (day/month/year) 21/06/2003
Applicant  WEATHERFORD/LAMB, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

MOTORS FOR ELECTRIC SUBMERSIBLE PUMPS

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 3



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/002667

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

A method of pumping wellbore liquid with an electric submersible pump at more than 4500 rpm.  
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2. claims: 10-15,26-29

A permanent magnet motor with a retaining sleeve  
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3. claims: 17-25,30-32

A motor having a rotor and a stator  
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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/002667

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 E21B43/12 H02K15/03

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	✓ US 5 923 111 A (ENO JAMES JOSEPH ET AL) 13 July 1999 (1999-07-13)	1,2,4-9
Y	column 1, line 13 - line 62; figure 1 -----	3
Y	✓ US 6 388 353 B1 (LIU JOSEPH C ET AL) 14 May 2002 (2002-05-14) cited in the application column 2, line 62 - line 65; figure 2 -----	3
A	US 6 000 915 A (HARTMAN MICHAEL G) 14 December 1999 (1999-12-14) cited in the application column 13, line 25 - line 37; figure 7 -----	1
A	US 6 254 353 B1 (CAVAGNA STEFANO ET AL) 3 July 2001 (2001-07-03) column 3, line 19 - line 39; figure 1 -----	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance  
"E" earlier document but published on or after the international filing date  
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
"O" document referring to an oral disclosure, use, exhibition or other means  
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  
"&" document member of the same patent family

Date of the actual completion of the international search

27 September 2004

Date of mailing of the international search report

08.02.2005

Name and mailing address of the ISA

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Authorized officer

Dantinne, P

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/002667

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5923111	A	13-07-1999	AU 1372599 A
		WO 9925055 A1	31-05-1999
US 6388353	B1	14-05-2002	NONE
US 6000915	A	14-12-1999	US 5951262 A
		AU 721827 B2	14-09-1999
		AU 6946698 A	13-07-2000
		CA 2286095 A1	13-11-1998
		CN 1260862 T	29-10-1998
		DE 19882347 T0	19-07-2000
		GB 2338516 A ,B	30-03-2000
		JP 2001522425 T	22-12-1999
		WO 9848167 A2	13-11-2001
			29-10-1998
US 6254353	B1	03-07-2001	CA 2285683 A1
			06-04-2000

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